

8.1.3.2 Port of Miami Intermodal Facility

A summary of the baseline risk metrics for the LNG ISO car lifting and movement cases at the Port of Miami intermodal facility is provided in Table 43. The maximum contribution to the IR and SR is from the Lift Off activities. The SR Integral representing the total Societal Risk with the surrounding population is the same order of magnitude as the mainline route segments with high population. The surrounding population immediately around the intermodal facility was represented as 488 people per square mile whereas the cruise ship terminal had an assumed population of 19,000 people (with an equivalent density of 191,800 people per square mile).

Table 43. Port of Miami - summary of the risk metrics for LNG ISO train movement and ISO lifting.

Risk Metric	Port of Miami
	C-1 (Baseline)
SR Integral (total risk, yr ⁻¹)	1.69×10 ⁻⁴
Maximum IR (yr ⁻¹)	4.45×10 ⁻⁵
Train Movement (from Track):	
Maximum Distance to Zone 1 - 1×10 ⁻⁵ IR (ft)	N/A
Maximum Distance to Zone 2 - 1×10 ⁻⁶ IR (ft)	N/A
Maximum Distance to Zone 3 - 3×10 ⁻⁷ IR (ft)	175
ISO Lifting (from Point):	
Maximum Distance to Zone 1 - 1×10 ⁻⁵ IR (ft)	290
Maximum Distance to Zone 2 - 1×10 ⁻⁶ IR (ft)	525
Maximum Distance to Zone 3 - 3×10 ⁻⁷ IR (ft)	545

An IR contour plot for the Port of Miami intermodal facility is provided in Figure 49 for train configuration C-1. The frequency contours correspond to the summed individual risks for release scenarios occurring from the Lift Off operations and intermodal facility train movements. The highest IR is centered around the location of the Lift Off operations. This contour is maintained within industrial low population areas of the Port.

The areas outside the intermodal facility where IR is greater than 3×10⁻⁷ yr⁻¹ contain only commercial/industrial structures, including a parking garage and shed to the north of the Lift Off operations. No Zone 3 sensitive targets were identified at IR values greater than 3×10⁻⁷ yr⁻¹. Given this analysis, the Individual Risk profiles for the Port of Miami intermodal facility are calculated to align with the fixed facility IR acceptability criteria stated in NFPA 59A (see Table 1).